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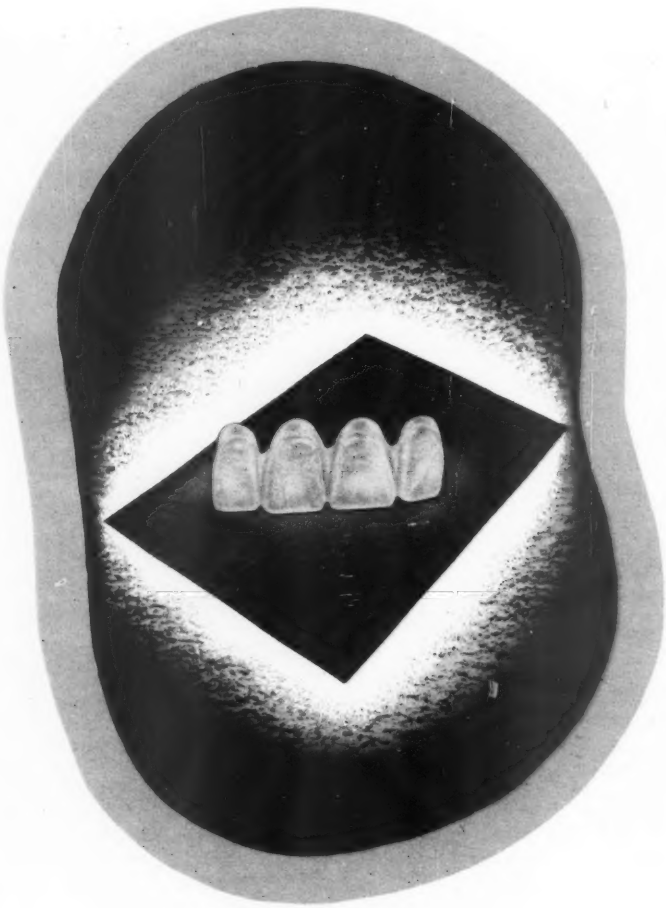

The esthetic possibilities and practical limitations of baked porcelain restorations have been established through years of satisfactory performance. Plastic jackets and bridges are, however, becoming increasingly popular. Less subject to fracture, they can be constructed with all of the naturalness of baked porcelain. In porcelain or plastics we are prepared to serve you.

Editorial

THE DENTAL SOCIETIES

For a great many years, we have been contributing articles to the various official dental journals and other dental publications at the request of their editors. Almost every one of these articles plead for the support of the A.D.A. and compliment the activities of its various departments. This was done because it was earned and we hoped the dentists would come to appreciate the efforts of the A.D.A. and its component groups in behalf of the members. But there is one phase of dental society activity that mystifies us and that is the administrative phase involving the election of officers and their special function.

It is simply amazing to witness the change of nearly all officers each year without apparent injury to the organizations themselves. Just imagine what would happen to a business that would change management each year. Their competitors would eat them up while adjustments to the new regime were taking place. Do you suppose that the dental societies succeed as well as they do because they have no competition? Could be.

We have always thought that organized dentistry would be better off, in countless ways, if it re-elected able officers. The way it is now the members have to suffer through some pretty bad administrations. The system which has prevailed for years dictates that a society should hasten to honor loyal, and often ancient members with the presidency simply because they have paid their dues for so many years and have served on many committees. The electing members seem to forget that administrative qualities involving leadership and management are imperative requirements of such high office. A man may be a good secretary or a good bird dog, but it does not follow that he may make a good president. This principle also applies to other elective and even appointive officers. Organized dentistry will have so many important decisions to make in the immediate future that we believe serious attention should be given to the administrative qualities of men holding office.

The best managed and the most progressive dental society we have ever seen is now operating in California. It is the Southern California State Dental Association. It is true that they change officers each year but they have a way of making way for youth to carry the burden. Best of all, they have a suite of beautiful offices manned by the most efficient, full-time personnel you can imagine. When a man is elected to office out there, he knows that he has a strong administrative group behind him that really understands how a dental society should be run. Other dental societies in this country might well take something from their book. How do they do it? Well, in the first place, the members pay dues of seventy dollars per year. A man who won't put that much back into dentistry isn't going to make much of a member. Maybe they found that out. Anyway, they have a large membership so we guess that they didn't lose anyone when the dues went up. The members know that they are getting value received.

Dentistry is on wings in California. Other societies should study their plan of operation.

— James Robinson

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Philip H. Austen

...A VOICE IN THE WILDERNESS

By BERT G. ANDERSON, D.D.S., *Associate Professor of Surgery*
Yale University School of Medicine

Philip H. Austen was a native of Baltimore, Maryland. He was born on June 26, 1822, the son of George and Caroline Austen. In 1852 he married Virginia, daughter of John Dushane, who bore him four daughters. He died in his native city October 1878 at the age of fifty-six years, survived by his wife and three daughters.

According to the record he was gifted with a superior and inquiring mind, and as a student made rapid progress in his studies. He entered the sophomore class at Yale and graduated at the age of nineteen years in 1841, from the University of Maryland School of Medicine, in 1845, and from the Baltimore College of Dental Surgery, in 1849. In each of these institutions he was an outstanding student, graduating with honors in both Medicine and Dentistry. As preparation for a teaching position he gave up all other employment, and toiled for three years before he was satisfied with his qualifications for this work. He was made Professor in the Baltimore College of Dental Surgery in 1852, and during a period of twenty-one years held successively the chairs of (1) Mechanism, (2) Chemistry, (3) Anatomy and Physiology, (4) Dental Science, and was for twelve years Dean of the Faculty. At the date of his resignation, October 1873, he was the Senior Professor and President of the Faculty. In 1865, he added to his professional work the supervision of the Preston County Coal Mines, West Virginia, which he opened successfully, serving as engineer and superintendent of this industry of which he was part owner.

"In private life he was entertaining, pure in speech, fluent and earnest in conversation. He was pre-eminently free from guile and selfishness in both private and professional intercourse. No sharp practices, disingenuous advantages or mean hypocrisy disfigured or dishonored his private life or professional career."

"Philip H. Austen made artificial Dentistry a specialty. His superior judgement, cultivated tastes and great mechanical genius placed him in the foremost rank. His Christian character, integrity, and education refined and elevated this branch of Dentistry."

"As Editor of Harris's Principles and Practice of Dentistry (that department which received his special attention, was really original matter) the numerous articles which he furnished for journals, and his translations of foreign works put him in the front rank as an author."

"Dr. Austen's was the brightest and most thoroughly cultivated mind which has ever honored Dentistry." These descriptions are taken from his obituary notices.

Harris's Principles and Practice of Dentistry is a text-book that was well-known to the profession during the last half of the nineteenth century. This book, which was first published in 1841 and ran through editions, was kept up-to-date through frequent revisions and additions. It was widely used as it contained much of the substantial knowledge required of a good dentist.

In the tenth edition published in 1879 (nineteen years after the death of Chapin H. Harris, and the year following that of Philip H. Austen) there occurs an introduction signed P.H.A. According to a statement in the preface Austen undertook the task of revising and editing this edition at the request of the members of the Harris family and the publishers. There is no indication as to just when the introduction was written. Its content is more significant as an essay on education than as a comment on this book. Although addressed to the dental profession, this essay deserves the attention of educators in other fields as well.

The introduction written by Austen to Harris's Principles and Practice of Dentistry follows in its entirety:

"Dentistry is the Science and Art of Medicine, applied to the Dental Organs. Placed at the beginning of the alimentary canal, these organs hold an

important relation to the digestive function and, through it, to the entire body. They have also inseparable connections with the nervous, circulatory and respiratory systems. Hence, whilst their preservation constitutes an important Art in medicine, the Science which teaches their structure, functions, diseases and treatment must necessarily be comprehensive. It must include those sciences which lie at the foundation of all medical art, and embrace so much of physical, mechanical and aesthetic science as its specific duties demand.

"The Anatomy, Physiology and Pathology of dentistry differ in no respect from that taught in medical schools. The limits of a special text-book or curriculum of study, or a curtailment of the term of preparation may require the omission of some details, to give opportunity for a fuller exposition of others; but a dentist's knowledge of these fundamental sciences admits no limitation, except that imposed by mental capacity. A single volume upon the 'Principles and Practice of Dentistry' must of necessity be rigidly eclectic in those sciences, each of which occupies many volumes for its full exposition; whilst it must give, in complete detail, all applications of science to its specific duties. Again, the eclecticism of teaching, both in the office and the college, is dependent upon the time over which it extends. Thus neither printed, oral, nor demonstrative systems of instruction can be taken as any correct measure of the amount of knowledge essential to professional excellence; for, in most cases, the knowledge thus gained is insufficient to give full value to the subsequent lessons of experience. The problem of professional education is one of difficult solution. While European systems seek to make 'experts' of students, American systems are content to make them 'experimenters.' The Old-world regards three or four years of extra study a small matter, compared with the lives and welfare of the community; the New-world considers any risk preferable to such delay in entering upon the practical duties of life.

"The Therapeutics of dentistry, unlike its anatomy, physiology and pathology, differs from that taught in the medical schools. It is Medical, Surgical and Prosthetic. In so far as it is a direction of medical science to the prevention, modification or removal, by medicinal and hygienic remedies, of the causes and effects of disease in the dental organs, it forms part of a physician's practice, just as does the treatment of cerebral, cardiac, or pulmonary disease. In so far as it is an application of surgical skill to the extraction of teeth, the removal of tumors, to the treatment of fractures or to staphyloraphy, it is simply Oral surgery, involving only such knowledge and skill in the use of instruments as every surgeon must possess. But dental therapeutics includes a class of operations not taught in medical schools and not practiced in the offices of physicians or surgeons: which, for their successful performance, require surroundings and appliances such as no other class of operations call for; demanding also an amount of time and special experience, which it is impossible for the general surgeon to devote to any one part of the body. Hence, by universal consent, this branch of therapeutics, under the name of Dental Surgery, is assigned to a special class of practitioners, who, like the oculist and obstetrician, perfect their art by limiting the sphere of its duties.

"The prevailing and distinguishing feature of dental therapeutics is Prosthetics—the art of replacement: replacement of dental *structure*, in such a manner and with such material as shall prevent further action of the destructive agencies; replacement of dental *organs*, by substitutes which shall physiologically restore impairment of functions and aesthetically restore the natural expression of the face. The medical therapeutics and oral surgery of dentistry are insufficient to establish it as a distinct branch of medical art; whilst the operations of filing and regulating the teeth form a small proportion of its specific duties. It owes its extent to the universal liability of the teeth to decay and loss; it owes its difficulty, as an art, to the complex nature of the methods by which this loss and decay must be remedied. In other words Prosthetic Mechanism constitutes by far the largest and most difficult part of dentistry, makes it a distinct branch of the art of medicine, and gives to it the power to add as it does to health, comfort, and the enjoyment of life.

"The physician, surgeon and dentist have necessarily many practical duties in common; but each has a clearly defined limitation of sphere, requiring specific direction of that general culture which all must possess. The Physician is a specialist; for, although he treats diseases which affect more or less the entire body, his therapeutics is restricted to hygiene and the materia medica, and there are many accidents, defects and pathological conditions, which are beyond the reach of his skill. Moreover, the physician's specialty tends constantly to subdivision; nor do we look for the most valuable contributions to medical science, except from those who apply themselves exclusively to some one class of diseases. Few minds can even approach that universality of genius, which characterized Hippocrates and John Hunter: hence devotion to a specialty of medical art detracts nothing from the position, which a man's education and talent entitle him to assume.

"The Surgeon is a specialist, although few confine themselves to a practice purely surgical, except in cities and hospitals. Richer and correctly defined the specialism of surgical therapeutics as the *'quod in therapeia mechanicum'*; its well-known etymology conveys the same idea. Yet the element of mech-

anism and necessity for the exercise of 'hand-craft' enter, more or less, into all physical sciences. Astronomy, chemistry, pharmacy, microscopic analysis and modern medical diagnosis demand exteme accuracy of manipulation; and all great discoverers in these sciences display the ability, not only to use, but also to invent and construct apparatus. The universal recognition of the great value of this element in every department of Physics has given the scientific world a more correct idea of the true dignity of highly-educated mechanical skill—skill, without which the physician's art is crippled, surgery becomes impotent and dentistry has no existence.

"The two departments of dental prosthetics, Structural and Organic, are usually classified as Operative and Mechanical dentistry. We have given preference, in this work, to the terms dental Surgery and dental Mechanics. Another classification is dentistry of the Chair and dentistry of the Laboratory. Each of these three classifications indicate prevailing characteristics, but all fail to point out the true basis both of the unity and the diversity of the two branches of dental practice. The editor does not feel at liberty to deviate, in the present volume, so widely from the author's arrangement: yet he may here suggest the following classification of dental therapeutics, or the Art of Dentistry. I. Medical. II. Surgical: (1 Oral surgery; 2. Dental surgery). III. Prosthetic: (1 Structural; 2. Organic).

"As medicine and surgery are combined in the practice of the majority of medical men, so the two classes of prosthetic mechanism are usually practiced together: but such practice, although, in a large number of cases, unavoidable, does not tend to the development of highest excellence in either department. Certain details of the laboratory unfit the hand for some of the more delicate operations of structural prosthetics; whilst the engrossing and more remunerative duties of the chair almost inevitably lead to a hasty and negligent performance of laboratory work. The usual method of meeting this difficulty, that is by dividing the duties of organic prosthesis, cannot be too severly condemned. It is like requiring an artist to paint a correct portrait from verbal description: it ignores every principle of dental aesthetics, and its results are artificial dentures, so devoid of expression and individuality, as to mar the features they are intended to adorn. But the prosthetic character of dentistry subjects it to a danger more serious than this unwise division of inseparable duties.

"Scientific mechanism implies not only skill in construction, but judgment and purpose in application. Unfortunately a few months' use of tools enables one, who has natural aptitudes in handling them, to produce specimens of workmanship, which are accepted as evidence of peculiar fitness of dentistry. If no early education has given habits of study, the fascinations of hand-work are permitted to engross time, that should be given to the harder and more distasteful head-work. The training, thus commencing and ending in mechanism, is discreditable not because of its mechanism, but because, being one-sided and partial, it necessarily fails to accomplish that which it promises. Such training may make dental laborers, tradesmen, or artisans; but never dental artists, or scientific mechanicians: nor can dentistry which they practice be, in any respect, identified with that which we have defined as a branch of the art of medicine.

"A preparation begun in pure science may end in correct practice, and the early habits of student-life may follow the professional man throughout his career; but a preparation, begun in practice, will end there. The routine of professional duties often tempt the scholar to sink into the mere practitioner; it is rare indeed that one reverses the order of nature and sets aside the claims and emoluments of practice, to acquire slowly those habits of study so easily learned in youth. It requires the broadest literary and classical education of boyhood to counteract the necessarily narrowing influence of the professional studies of manhood; and it demands the largest possible infusion of purely scientific teaching, during professional pupilage, to correct the matter-of-fact influence of practice. In this lies the great error of American practical systems of education. They teach boyhood to take a utilitarian view of every lesson learned, and encourage young men to neglect studies in which they cannot see some prospective pecuniary value. It is the application to science and art, of that philosophy of life, which subordinates mind and body to the one idea of making a living; that spirit of trade, which regards classical study a waste of years, in which plastic youth can best be moulded into the mercantile idea of Profit and Loss. Limitation, first in the amount of mental culture, secondly in its direction, is thus made to combine with the inevitable influence of all exclusive pursuit, whether of science or business; the result is a rapid increase, in all professions, of men whose vision is limited by the narrow horizon of their special occupation, and who possess none of that large-minded liberality, which is the outgrowth of a generous education. It is by such early restriction of thought and action within the narrow grooves of life's future pursuits that a merchant so often loses all power to enjoy the fruit of his toil, a physician is unknown beyond the sick-room, a surgeon contributes nothing to the cause of science, and a dentist holds no social position. This inevitable tendency of purely practical education was recognized by Lord Brougham when he recommended *Dante*, as a textbook, to an inquiring student of law.

"The antagonism of trade and pure science is seen not only in the result of attempting to make all education utilitarian. It appears whenever, in professional life, the laws of barter come to be applied to brain-work and its products. Mercantile relations of cost and price are capable of definite adjustment, when applied to commodities of known values, enhanced by labor at given rates; there are data also, upon which the speculative fluctuations of prospective supply and demand are based: so that in all bargains, buyer and seller may stand upon the ground of equal ability to judge these questions. But professional service is amenable to no such standard: the client cannot estimate the cost of his lawyer's pleading, nor can the patient know, until long afterwards, the full value of his physician's prescription. The conditions of honest barter are absent, for client and patient are alike depending upon the integrity of the professional man; hence professional bargaining is dishonorable, and inevitably leads to the rendering of a disreputable grade of service. The common practice of valuation by the visit or the hour is so manifestly unequal in its working, that it is only another proof of the impracticability of measuring science and art work by commercial standards.

"The medical fee is a valuation of thought and skill, exercised for the preservation of life and health. On the part of the patient, it is considered a gratuity, by those who fail to perceive the elements of cost in such work; a compensation, by those who recognize an equivalent received; an acknowledgement, by the few who refuse to believe that money can adequately reward such service. Viewed from the professional side, the fee has nothing to do with the quality of the service, nor does it enter into the mind of any right-thinking man, whilst rendering it. Mr. Ruskin says with great truth 'it is impossible for a well-educated, intellectual or brave man to make money the chief object of his thoughts; yet a healthy-minded man enjoys the honest winning of money, and will insist upon a fair valuation of his work. But with all brave men, the work is first and the fee second; whilst there is a vast class, ill educated, cowardly, and more or less stupid, with whom the fee is first and the work second.'

"All professions have suffered much by this perverted application of mercantile law to professional fees; but none so severely as dentistry. This is due to the prevalent idea, that the gold filling and the artificial denture are as ligitimate objects of barter and contract, as any other tangible article of manufacture: whereas, in reality, they are no more so than the surgical operation, or the medical advice. When the dentist forsakes the vantage ground of a professional fee for 'services rendered,' and condescends to bargain for the definite products of his skill, he at once destroys the professional character of his position. Not only does he lose caste; but in the class to which he has descended, the question of price invariably leads to considerations of cost, and the quality of his work slowly perhaps, but surely deteriorates. The disastrous influence of vulcanite abundantly proves that, when cost of material is permitted to enter as an element in determining the value of scientific art-work, it inevitably degrades it; and the entire history of prosthetic dentistry shows that competition in price (the development of Mr. Ruskin's 'fee first and work second') is fatal to all progress in art or advancement in science. The results of such competition are, to honest men, a life of slavish toil, with no time for self-improvement; to others, a deliberate slighting of work which destroys all the nobility of a man's nature. Dentistry, thus learned and thus practiced, has no just claim to be called a profession; it has neither the liberality, generosity, nor culture, which men are accustomed to associate with professional life; and its pretentious claims serve only to call to mind the satire of Juvenal, *'Scire volunt omnes, mercedem solvere nemo.'*

"Dentistry, as a true science and art, is built upon the foundation of a generous early education, is enlightened by a complete medical course of instruction, is specially trained by a full term of practical pupilage, and recognizes no sliding-scale in the quality of the service it renders. Such dentistry will exercise influence in its own, and command respect among kindred, professions; for it becomes thus a curative work, second in importance and extent of its usefulness to no specialty of the great Art of Healing.

— P.H.A."

The introduction reprinted here contains a clearly stated philosophy of education. One can hardly escape the reasonableness of its author's argument. Published more than half a century ago, and buried now for several decades between the covers of an antiquated text-book of dentistry, these words still convey a freshness of thought such as is seldom found in present-day writings on the subject.

(continued on page 16)

The Dental Hygienists' Corner

As time goes on, the Dental Hygienist will find her work confined, in much greater measure, to the professional duties for which she has been so well trained and which carry such tremendous value to the patient and the dentists' practice.

Dental patient traffic will continue heavy for some little time to come. The wise dentist will release the Dental Hygienist to her special work, free from general office duties that belong to secretaries and Dental Assistants. Of course, it is realized that such a program cannot be carried forward in every dental office, but we dare say that you will see the duties of auxiliary personnel more clearly defined in the well-managed dental practice of the immediate future.

This movement will gather momentum when more dentists acquire confidence and faith in what a Dental Hygienist can do. And it is strictly up to the Dental Hygienist and her supporters in the profession to create that confidence and faith. This may be done by the operation of professional relations committees appointed by the various state groups and by your National Association.

It should be the duty of these committees to sell the Dental Hygienist to the dental profession at large on the value of having her function according to her special training and, thereby, contribute a greater monetary profit to her employer while bringing the benefits of her work to a greater number of dental patients.

Such committees would invade the various dental journals and magazines with practical articles on the subject of economics as applied to your work. They would encourage employers to write articles outlining the benefits that they and their patients enjoy through your work. They would supply interesting and valuable facts to all well-known speakers who frequently appear on programs and who deal with economics and public health.

In addition to this activity, each Dental Hygienist should meet her individual responsibilities in erecting value around her services. She should give great and thoughtful consideration to the part she must play in the private dental practice of today.

TIC magazine will publish something later on the wonderful work the Dental Hygienist is doing in the public schools, hospitals and clinics.

TIC magazine has announced its intention to devote a full page of each monthly issue to the work of the Dental Hygienist in all fields.

A twenty-five dollar War Bond will be paid to the author for each published article. This is your page. Please fill it.

The Editor

Problems of Private Practice Today and Tomorrow

by JAMES ROBINSON, Albany, New York

REPRINTED FROM THE JOURNAL OF THE SOUTHERN CALIFORNIA STATE DENTAL ASSOCIATION, NOVEMBER, 1945.

We cannot properly approach the subject matter of this address without examining a little of the history of modern dental practice management.

In earlier days it was a question of getting a dentist interested in money at all (very delicate matter to talk of money out loud to the profession). Then, slowly, men began to realize that ethics and economics were inseparable companions of achievement. Dentists became more aware of their responsibilities. Many took courses, adopted plans for more efficient office routines, better bookkeeping systems, etc. Some found out that there was a great difference between adoption and adaptation. On the whole, however, there was great improvement in office management.

Then the depression came along and the dentist began to retrench. He became disturbed, reduced his fees, fired his dental assistant, cut down on towels and economized in various other ways—some wise, some not so wise. Gradually he found out that he had to rebuild what was once a private empire which had been rapidly dissolved through the economic pressure of the times. And so, those of us who discuss the subject of economics, with its many ramifications, find ourselves constantly faced with ever-changing problems. Today's situation is always somewhat different from yesterday's. Let us look at some of the problems.

There is not a single plan announced, at present, that could possibly increase the number of dentists for eight years to come. The reasons are these: small freshmen classes in the dental colleges; expected normal loss of practicing dentists through death; retirement of a fair-sized group to enjoy the fruits of their hard labor; and the fact that quite a few dentists will remain in the military forces. In fact, I predict that there will be a lesser number of dentists practicing eight years from today than are practicing right now. This is the situation, mind you, in a country that gave dentistry to the world and has, at last, an awakened dental health consciousness. This is of no great surprise when you consider that we have graduated fewer dentists in each of the last fifteen years than we did in the year 1898.

Business economists tell us that there will be prosperity in this country for several years to come. That means a continuance of heavy patient traffic. What should be done about this? Is the profession equipped to handle this traffic properly?

The unprecedented patient traffic in dental offices today has focused a bright light on the great need for auxiliary services in support of the dentist. The three major services are the dental assistant, the dental hygienist and the dental technician. Dentistry is bravely trying to face the trial of successfully managing this traffic but has met with severe handicaps. Despite repeated warnings and suggestions all down through the years, dentistry has created no reservoir for this valuable help.

The dental assistant has been selected at random, often by sheer chance and without basic training. The training has been left entirely to the individual dentist who is not always capable of teaching this type of service. This has turned out to be a very expensive procedure because of the large turnover in this type of employment. How much better it would be if each state had a central school with an established course of training for dental assistants. This course could be set up, preferably, in dental schools and a certificate issued to each student. The tuition fee would be modest and the training period set up for a 90-day course. It may even be done in 60 days. This kind of work would be very attractive to thousands of high school girls. The advantage of placing the course in the dental schools lies in the fact that the student would get practical experience at the dental chair while working with college students who are also in need of instruction in chair

efficiency. The girls would also be brought to see the true picture in dental college atmosphere.

If dental colleges do not care to establish such courses, then I suggest that organized dentistry support a plan that will place this training in junior colleges. Please remember that I am recommending only basic training to meet the profession's immediate need. Your two-year course at City College in Los Angeles is fine but graduating about 50 girls each year will never help your situation much, although this school certainly should be supported.

The dental hygienist has been a Godsend to dentists wherever employed in private practice. This is aside from the very valuable work they do in the public schools and other institutions. They absorb a multitude of minor services which release the dentist for the purpose of major, productive work. They lend dignity to an office and do a fine type of prophylactic work. Where would the physicians and the surgeons of this country be without the services of nurses? By the way, the term dental hygienist, in my opinion, is unfortunate. They should be called dental nurses as they are in Canada. The dental societies should get behind a plan right away to increase the number of dental hygienists.

The dental technicians should also be trained in the dental colleges to create a reservoir of this type of help, both for the dentist and the professional dental laboratories. You have a precedent for this in South America. There are those who believe that the college would lose dignity in the training of auxiliary help for the dentists. This is sheer shortsightedness. Where dignity truly exists, there will always be dignity. It is a matter of good administration.

Private technicians are at a premium. Even where many are employed, it is necessary to send a portion of the prosthetic work to commercial laboratories. This will be the situation for some time to come. Without such service, dentistry would have been sadly handicapped during the war.

The commercial laboratory service to the dentist has now reached one hundred millions of dollars. It is to the everlasting credit of these service units that this amount of work has been done with a relatively small amount of evil creeping in. To eliminate any present evils on the part of trade pirates, the leading laboratory service units would like to see proper controls instituted by the dental profession through sound legislation. Many in the profession would also like to see the adoption of controls. It is a matter of getting together and working it out harmoniously. Perhaps the individual state dental practice acts should be altered to permit licensing of the laboratories as an intimate professional service. If this is possible, both the dental profession and the laboratory owners will be protected against many evils. They will also be protected against the unions which would certainly not do the dental profession any good. Unions are extremely unattractive where professional service is involved. This is an individual state problem because individual state laws are involved. You should work this out right now.

Much has been said about an accreditation plan for laboratories. This is also a matter of individual state action. In my opinion, it is a weak substitute for controls. I will agree, however, that it would be a step in the right direction.

You will make the private practice of dentistry more enjoyable and productive if you will heed the following suggestions which affect your daily work:

1. The entire responsibility for making appointments should lie with one person . . . preferably your dental assistant or secretary. Too much confusion and too many mistakes result when more than one person makes appointments.

2. Make your appointments at the business desk so that the operating room may be made ready for the next patient. This system carries another advantage because appointment cards should be made out, the patient will have her purse and, perhaps, some money with her.

3. Never book a solid appointment schedule for any single day. Adopt an open office period, preferably in the early afternoon, for the purpose of taking care of those patients who require only relatively small services such as treatments, adjustments, polishing of restorations and seeing those prospective patients who simply want you to "look at my mouth." As it stands now, you are squeezing this type of patient into your regular appointment schedule. This is irritating and uncomfortable to all concerned. The minimum time for this period should be one hour. It is a cushion hour to absorb many minor duties.

4. Appoint your patients for longer sittings. Modern pain-control methods now make it possible to keep patients for longer sittings in perfect comfort. Parking problems together with an absence of household help make repeated visits for short periods to the dentist a real hardship. Further, from an economic and productive standpoint, you will certainly do more dentistry for ten patients in a single day than for twenty. Those figures are used only as an example.

5. Give your dental assistant the advantage of more responsibility. Teach every patient to respect the help you have in your office by insisting that tele-

phone calls, reception of patients, the appointment of patients and the collection of fees are entirely in her hands.

6. The ideal dental office has a dental assistant, a dental hygienist, a secretary and a technician. Plan your practice to be staffed that way and the practice of dentistry becomes a real pleasure. The difference in production with profit to both patient and dentist in offices where the proper auxiliary help is employed, is simply amazing.

Allow me to include a few words about public relations work.

All substantial private dental practices are built right at the side of the chair. Any activity that you may employ in the meeting of people and holding social communion may help a little, but it is not the answer to the building and retention of a good dental practice. The difference in the success of most practices is represented in the grace and strategy with which you handle people and the character of the work you do in their behalf. And the entire procedure begins with a sound diagnostic program.

Public relations work, as carried forward by the dental societies, should certainly continue in ever-increasing volume but a great deal is needed to inspire the individual dentist to meet his responsibilities in this work. The magnificent contribution that dentistry does and can make to the social and business life of the people should be stressed to each patient every day. The dental story should be simple, crystal clear, attractive and have a direct bearing on the life of the patient. The public should be given to understand that dentistry is fighting a good battle in its efforts to keep faces and mouths more youthful. The mouths of most people are from ten to twenty years older than the rest of the human body. It should be made clear that dentistry defends the hearing, the lip line, the speech, the smile and the very skintone of the face. The individual dentist should build all these values in the minds of every patient. Everything a dentist says to a patient should be free of technical terms, trade names and Latin phrases. There is a way to do this and it should be studied.

Dental literature is prepared, largely, for adults. Dentistry should provide attractive material for use by all public school teachers and nurses.

Dental hygienists should be placed in every hospital to record the general conditions of mouths. They could teach medical patients the value of mouth cleanliness. They could clean the mouths of the helpless and make them grateful.

Earlier in this address the question was asked—is dentistry equipped to handle the present heavy patient traffic which is likely to continue? Let me point out a few additional weaknesses that should be remedied if these people are to be seen.

Approximately 50% of the dentists have no office help at all. This is not true of California but is true nationally.

Approximately 50% of the dentists operate one chair only.

Those who have more than one chair do not often equip each room for efficient performance. Each room should have duplicate instruments and materials. There should be no such thing as a "main operating room" because it places the dentist in the unfortunate position of apologizing to patients who have been previously served in another room.

Many offices having but one assistant should have two. Those having two assistants should often have three.

A practice with heavy patient volume should always employ a secretary.

* * *

Practice management is on trial today and will be for some time to come. You can make a fair living out of dentistry even if you mismanage your office. You can ignore all these recommendations. You can work ridiculous hours. You can acquire bad health. You can decline to help dentistry with its problems. But there is no fun being the richest man in the cemetery.

Please accept what has been said here as you would chaff and grain together; sift it with a charitable hand, keep what is worth keeping and, with the breath of kindness, gently blow the rest away.

This is a report on an extemporaneous address given by Mr. Robinson before the Southern California State Dental Association and the Los Angeles Dental Society, September 8, 1945.

The Dental Assistants' Corner

Information ON THE CARE OF EQUIPMENT, INSTRUMENTS, MATERIALS AND THE REMOVAL OF STAINS

- If instruments are dipped in alcohol immediately before using, they will not stick to zinc oxide, eugenol paste, temporary stopping, Wondr-Pak or cement.
- Bur blocks can be quickly cleaned (without removing the burs) by spraying them with naphtha, using the spray bottle for the purpose. The naphtha evaporates quickly, leaving the bur block clean and dry.
- Those trays that are hopelessly "stuck up" with modeling compound can be easily cleaned with chloroform.
- The line deposit that accumulates on the cuspidor bowl in localities where the water is hard is best removed by scrubbing the bowl with muriatic (hydrochloric) acid. Use a cotton roll saturated with the acid and rub briskly. Neutralize with soda.
- Discolored or tarnished copper bands can be made to look like new by heating them to cherry red and then plunging them in alcohol.
- Discolored porcelain facings can be thoroughly cleaned by immersing them for 10 or 15 minutes in a 50 per cent solution of muriatic acid to which has been added 10 or 15 drops of potassium permanganate solution. Wash clean with oxalic acid.
- Bits of amalgam that cling to the inside of the mortar used in mixing amalgam fillings can be readily removed by grinding up in the mortar a cleansing tablet used for prophylactic work.
- The best way to remove X-Ray fixer solution stains ordinarily is to apply X-Ray fixer to the stain or spot, and then apply tincture of iodine over that. This works like an ink eradicator and is successful in most cases. All fabrics do not react alike, however, and it is always well to try it on some portion of the garment that is less conspicuous before trying to remove major stains.
- Sulphuric acid stains cannot be removed but can be prevented by neutralizing with a solution of sodium bicarbonate, ammonia water, or any alkali, if used in time.
- Zinc oxide cement can be removed from the wet slab by boiling in a bicarbonate solution. However, caution should be taken against boiling the slab in a bicarbonate solution due to the fact that a great number of persons use a temperature slab, a glass slab which contains a thermometer, and of course, boiling would injure the thermometer due to the fact that the range is below boiling.
- If a thin film remains on the slab either from a silicate mix, or a zinc oxide cement mix, a few drops of the cement or silicate liquid placed on the slab and rubbed over the area with the finger will loosen the film, and then the slab can be washed clean with water.
- If used soon enough, Eugenol stains can be removed from mixing slabs, the bracket table, and porcelain instruments by wiping them with alcohol.
- Rust is removed from flat instruments by applying a mixture of pumice and aromatic spirits of ammonia.
- Chromic acid stains may be removed from porcelain cabinet tops with alcohol alone, sometimes a little more effectively by the addition of about 25% of *hydrogen dioxide*. If the stain is old or on a porous surface, it is impossible to remove it.
- Stiffness in forceps and pliers caused from rust is removed by applying aromatic spirits of ammonia-lye. Work instrument back and forth until stiffness is removed then oil.
- Iodine stain can be removed by saturating stain with 15 per cent solution of sodium thiosulphate.
- Silver nitrate stains can be removed with a saturated solution of potassium iodide, then iodine, and remove iodine with sodium thiosulphate, as directed above. Stains can be prevented by use of a saturated solution of salt, but must be used before oxidation.

● HERE IS A COPY OF A LETTER WHICH ONE THOUGHTFUL DENTIST SENT ME PREVIOUS TO A LECTURE WHICH I DELIVERED TO A GROUP OF DENTAL ASSISTANTS. *THE EDITOR.*

Dear Sir:

Certainly think you're doing a worthwhile job! Sure would like to listen in — but understand.

Kindly stress!

1. Leave cosmetics at <u>home!</u>
   Don't clutter up my desk drawers with
   1. Nail polish and manicure sets.
   2. Facial creams.
   3. Powder, rouge, lipstick, facial tissues, kleenex, apples, candy, mystery stories, personal mail, personal packages, etc., etc.!!!
2. Run my business! Let me <u>produce!</u>
3. Make a memorandum <u>at once</u> of all matters turned over to secretary, and <u>don't hide</u> memorandums under telephone book or in desk nooks! – to be found a month later, still unattended to. Keep right in front of secretary until taken care of, so I can <u>forget</u> these myriad details once I tell my secretary and not have to <u>continually</u> carry them in mind—wonder whether they've been taken care of!
4. Carry through each assignment to <u>completion!</u> before starting another. Don't skip from one thing incompleted to another. <u>"First Things First!"</u>
5. Have
   "A place for everything and everything in its place!"
6. The "mental peace" of a good dentist depends on
   1. Order
   2. Exacting attention to details!
   3. Release from "business details".

This must be anonymous and <u>please</u> don't use this letter or read it to class. My girls will be there and I'm almost sure they'll recognize these words – (but they're the prayer of every dentist) and I keep pounding them in day after day but results?

But maybe if <u>you</u> express these hopes and prayers in your own words —"well, it might sink in".

Thank you again!

A tired, worn-out

Dentist

P.S.: <u>My</u> noble secretary lost or mislaid your announcement, so I don't even know whom to address or to thank — and just by luck I found the return postcard all made out but still unsent tucked way back in an unused corner of the desk drawer!

P.S.: Just looked in the stamp box — <u>and no stamps!</u>
Oh well, just another so-called secretary for the well known bread line as soon as this war (if ever) is over — and if <u>I'm</u> still <u>sane!</u>
<u>Until</u> then do the best you can for us. I know it's useless to try to change girls now.
I, for one, will be forever grateful!

How to Use Pin Pontics

FOR FIXED BRIDGEWORK

The first problem in deciding how to use pontics is to settle whether to use them with unprotected porcelain edges, as manufactured, or to reinforce the edges to withstand more stress than the unprotected porcelain can resist.

This problem is easily solved. Have the patient extrude the mandible to the incising position and decide whether light or heavy stress will be brought upon the pontics.

Generally speaking, excessive biting stress contraindicates the use of these pontics with all-porcelain incisal edges. However, they may be used in certain unfavorable conditions if the operator fully appreciates the stress problem and reinforces the incisal edges with gold alloy backings.

As will be explained, observation of the intercuspation of the posterior teeth, the degree of abrasion or malposition and the tooth movements will aid in making a correct diagnosis. Study models may be helpful, but the mandibular movements of the patient will usually offer the necessary information as to the course to be followed.

Mouth habits and biting habits should always be studied before deciding whether the pontics should be altered — and, if so, how — for anterior restorations.

It should be remembered that patients whose occupations or avocations require certain forms of mental concentration are likely to bite excessively on anterior teeth, and that, in all such cases, more than ordinary protection for the pontics is necessary. Such patients include those who hold cigarette holders or pipe stems between their anterior teeth, artists who habitually put brush handles between their teeth when not painting and people who grind their upper and lower teeth together because of nervous tension. For all such patients, pontics should be protected by adequate metal tips.

On the other hand, patients in certain professional pursuits demand esthetics, regardless of breakage hazards. Such people as singers, concert artists, actors, people who must appear at their best in public, and who, in the exercise of their particular professions, may display the lingual surfaces of their anterior teeth will usually prefer no display of lingual incisal backings, even though an occasional breakage may occur. If such patients have been forewarned by an accurate presentation of the problems involved in their individual cases, they will not resent breakage, providing replacement is relatively quick and simple.

The operator should realize that backings, unless extremely heavy, will gradually yield under the very considerable total stress that may be imposed upon them and that they will stand only a limited number of repairs. It is in the highest degree desirable that patients should understand these facts, so that they may exercise extraordinary care and may not feel aggrieved when a backing finally yields and the tooth breaks.

Favorable Conditions for Using the Pontics as Manufactured

The following cases indicate four favorable conditions for the use of Trubyte New Hue Pin Pontics, as manufactured:

1.

Cases where there are normal overbite and overjet and the cuspal relations of the posterior teeth are such as to offer protection to the incisal areas of the pontics, as shown in *Figure 1*.

In such cases the intercuspation of the posterior teeth is such that when the patient masticates and incises food, the planes of the cusps of the posterior teeth ride on each other in such manner that as the mandible moves forward it must also move rather rapidly downward. Thus the incisal areas of the

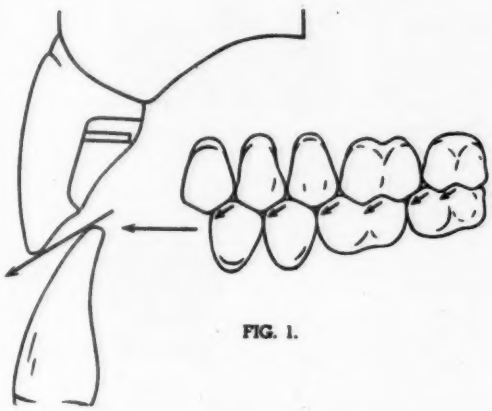

FIG. 1.

anterior teeth are guided into a diagonal shearing function, exerting very little stress upon the unprotected incisal area of the pontic. The path of travel in such cases is indicated by the direction of the arrows.

2.

Cases where there is more than the normal degree of overjet, as shown in *Figure 2*. This makes it impossible for the lowers to exert pressure-contact on the lingual incisal area of the uppers.

In such cases, when the intercuspation of the posterior teeth is normal, the mandible would follow the path, as shown by arrow A in *Figure 2*. Where the posterior cusps are slightly shortened by abrasion, the path of travel would be as shown by arrow B.

In either case the stress against the incisal tip of the pontic, as at C, would be reasonable or would be missing altogether.

3.

Cases where there is an "open-bite" relation of the anterior teeth, so that they do not touch in any excursion of the mandible.

Such cases are frequently found where the patient, in early life, was a mouth breather or a thumb sucker.

On many such cases, also, the centrals or the centrals and laterals form a V-shaped anterior arch so that either the incisal edges of uppers and lowers do not touch or only the distal portions of the incisal edges may be brought into light incising contact.

4.

Cases where the upper anterior teeth are opposed by artificial lower anterior teeth mounted on movable or yielding bases, as in partial or full denture cases.

Here it is self-evident that the greatly lessened stresses of mastication and incision lessen the vulnerability of the unprotected incisal areas of the upper anterior pontics. Nevertheless, it is conceivable that an occasional case of this kind might present articulation stress sufficient to indicate reinforcement, such as described in *Figure 4*, page 14.

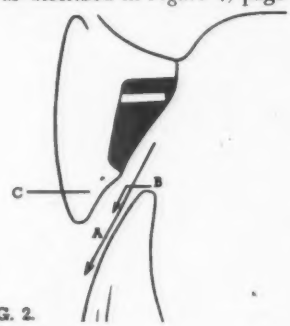

FIG. 2.

Unfavorable Biting Conditions Needing Compensatory Reinforcement

The following illustrate unfavorable biting conditions, contraindicating the use of the Trubyte New Hue Pin Pontics, as manufactured, and making compensatory reinforcement necessary. Where such unfavorable conditions exist, the technician, armed with complete knowledge of the articulation peculiarities of each individual case, may lessen the danger of breakage by employing various methods of reinforcement.

1.

Cases where there are overbite and overjet, but the intercuspation of the posterior teeth is such that there will be some strain upon the unprotected incisal areas of the pontics in mastication and incision, as shown in *Figure 3*.

In such cases, because of some posterior cusp abrasion or because of extraction of one or more

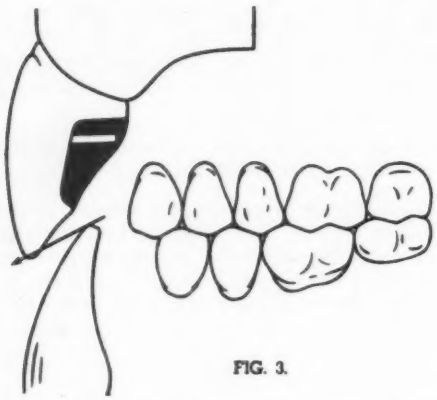

FIG. 3.

posterior teeth, the intercuspation of the posterior teeth is such that, in mastication or incision, stress may be brought to bear rather heavily on the unprotected incisal area of the pontic. Protection should be provided by altering the mesial and distal corners of the incisal shoulder by grinding to allow for reinforcement, as shown in *Figure 4*.

With a suitable stone, such as S. S. White #11 stone, chamfer the mesial and distal corners of the incisal shoulder in such a manner that the wax backing will slip off in a direction parallel to the pins. The chamfering must be of sufficient depth so that, when the gold backing is extended to the protection areas thus provided, it will offer real resistance to biting forces. Particularly if adjacent pontic facings are treated in this manner, it will be seen that the contacting reinforcements, when soldered or cast together, as shown at B, in *Figure 4*, constitute a sturdy platform upon which the incisal edges of the lower incisors may travel without coming into direct contact with the unprotected porcelain tips.

By having the patient make protrusive movements of the mandible against articulation paper, any points where the tips of the lower incisors *do strike* the unprotected procelain should be noted. Then the lower anterior incisal edges may be trimmed judiciously so that the reinforcing platforms will bear the brunt of the burden. Still another method of protection is shown in *Figure 4A*.

2.

Cases where there is overbite and no overjet contraindicate this type of pontic, as manufactured, but the lingual incisal area may be modified, as in *Figure 5*, by beveling so as to retain much of the translucent beauty of the pontic and yet afford protection against breakage.

It is obvious here that any protrusive movement of the mandible, even though the posterior cusps are not abraded, would produce excessive pressure

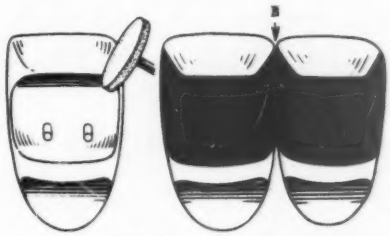

FIG. 4.

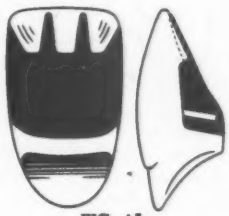

FIG. 4A.

upon the unprotected incisal area of the pontic. See *Figure 5*.

If the lingual incisal area is ground, as indicated by dotted line in *Figure 5*, the gold reinforcement will protect the porcelain pontic.

The case would then appear as shown in *Figure 6*, and by finishing the incisal backing with a disk, held at an angle, as indicated by the arrow, the gold backing will be hidden.

The important thing to consider here, as in all cases of upper pontics — whether anterior or posterior — is that *long* bevels of the porcelain afford opportunity for real protection — *short* ones *do not*.

The thicker these protective backings, the more resistant they are to bending and distorting forces, and the better they protect the pontic from the pressure that produces breakage.

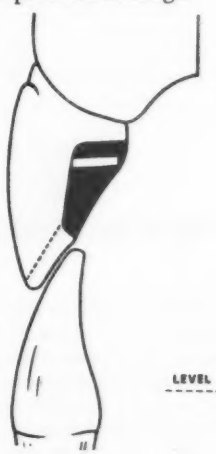

FIG. 5.

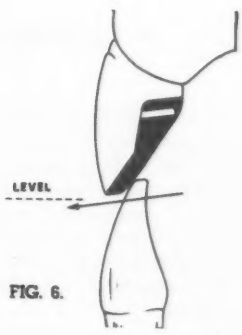

FIG. 6.

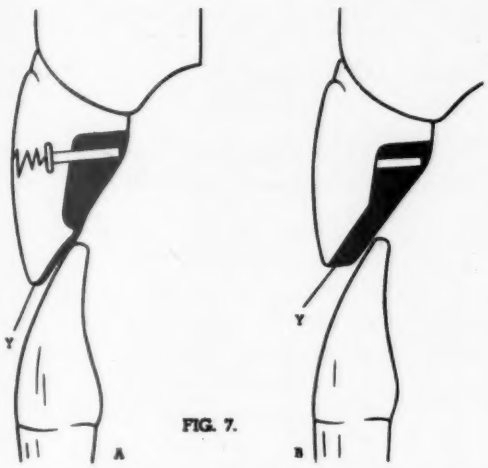

FIG. 7.

Let us take two cases, identical except as to the method of protection by the backing, as illustrated in *Figure 7*.

Whenever the incisal portion of a pontic needs protection from stress, it should be well protected. If, as is shown in *Figure 7A*, a thin backing is used, frequently recurring pressure from the lower incisors will slowly bend the backing until some slight and apparently unimportant contact will break the porcelain. A thin backing may thus become a cource of dissatisfaction to the patient and an expense to the operator.

Whenever there is the slightest expectation of heavy incisal pressure, but no gold can be exposed, pleasing results can be obtained by grinding the pontic to the desired length of labial surface and then grinding the lingual surface of the incisal third to a long concave bevel, *as shown at B*, leaving ample space between it and the lower anterior. A gold backing strong enough to resist the anticipated pressure and have a safety margin is then formed with the incisal edge of the gold horizontal, *as shown at Y*. No gold will be visible from the front, and the danger of breakage will be reduced to a minimum.

3.

Cases where considerable posterior occlusal abrasion has taken place, and where the remaining anterior teeth exhibit incisal abrasion, contraindicate the use of these pontic facings, as manufactured. See *Figure 8*.

But these pontics may be altered to meet such conditions, within *reasonable* limits, even in cases of "end-to-end bite."

Where natural teeth exhibit the condition of abrasion, as illustrated in *Figure 8*, the use of pontics with unprotected porcelain incisal tips would be folly.

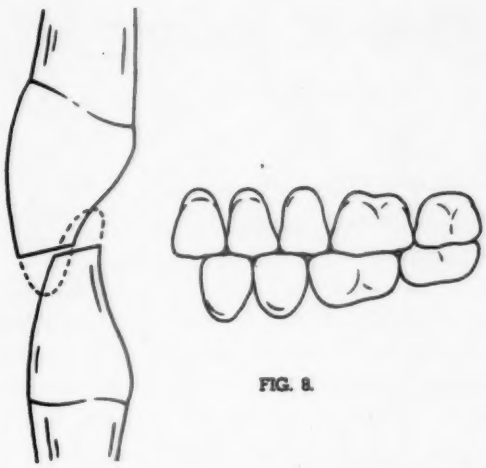

FIG. 8.

If the patient's own teeth, presumably originally having been protected from abrasion by normally hard, resistant enamel, could be so mutilated by usage, surely the use of unprotected porcelain incisal tips is out of the question.

To match such teeth, the artificial pontics should also exhibit the same coloration as has been produced in the natural teeth by abrasion.

Starting with a short pontic facing of proper shade, first grind the gingival extension to fit the ridge *(as in Figure 9)* and then the incisal portion to fit the bite, as shown by the dotted line.

When the pontic is ground and a substantial backing has been adapted, it will appear as illustrated on the right in *Figure 9*.

In such cases, of course, the successful use of any type of porcelain facing is limited. Opening the bite and general rehabilitation are really what is needed.

Prepared by Educational Department
The Dentists' Supply Company of New York.

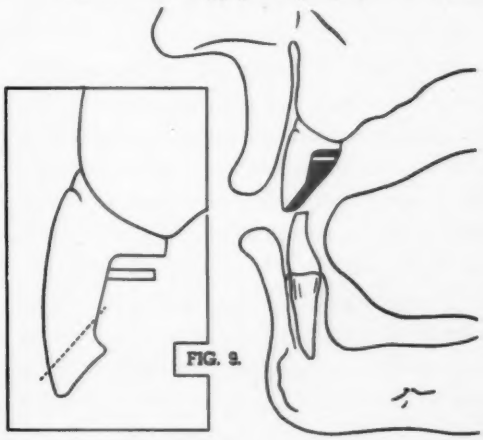

FIG. 9.

Philip H. Austen

(continued from page five)

Philip H. Austen saw the danger of the trend towards short-cuts in professional education. This tendency later developed into an effective movement as he prophesied. But a high degree of specialization was a natural and necessary development in modern times. Today one cannot deny the value of a direct practical training, especially for those who are to serve mainly as therapists. Neither should one question the value of a more fundamental and general training for those who have broader and more intellectual interests in the field. In recent years it has been recognized that the surest way to bring about the most desirable professional development is to have expertness rest on a foundation of general experience and basic training. This has been the natural growth that outstanding specialists have gone through in the past, and suggests a plan that might be used for the present.

The problem of dental education has changed in some respects since Dr. Austen's time. He could scarcely have foreseen the present-day need of so large a body of expert therapists in the field of dentistry. The requirement of a superior training, such as advocated by Dr. Austen for all dentists, is today obviously impossible, but the necessity for a few outstanding leaders to have a general cultural background, as well as a thorough training in those sciences which are basic for other branches of medicine, is more apparent now than ever. These men will provide a solid foundation for the profession in our highly specialized and rapidly changing time. They bring together the loose ends of the various specialties, bind them to a common base in the present and help to maintain a continuity with the past and the future. Philip H. Austen, himself, admirably served just this purpose.

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